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(54) Simplified digital pad sensor

(57) A touchpad sensor comprising a first plurality of electrically conductive strips positioned proximate to a second plurality of electrically conductive strips. The conductive strips in each plurality lie substantially in a single plane and the two pluralities are skewed relative to one-another in plan view. Ideally, the pluralities are aligned orthogonally. The conductive strips are separated by insulators that extend beyond the surface of at least one of the pluralities of conductors to separate the conductors of one plurality from the conductors of the other plurality until a localized pressure is applied to a region of the pad. When a localized pressure is applied, the conductors and insulators deform until a conductor from the first plurality forms an electrically conducting path with at least one conductor from the second plurality, which can be detected using banks of drivers and receivers.

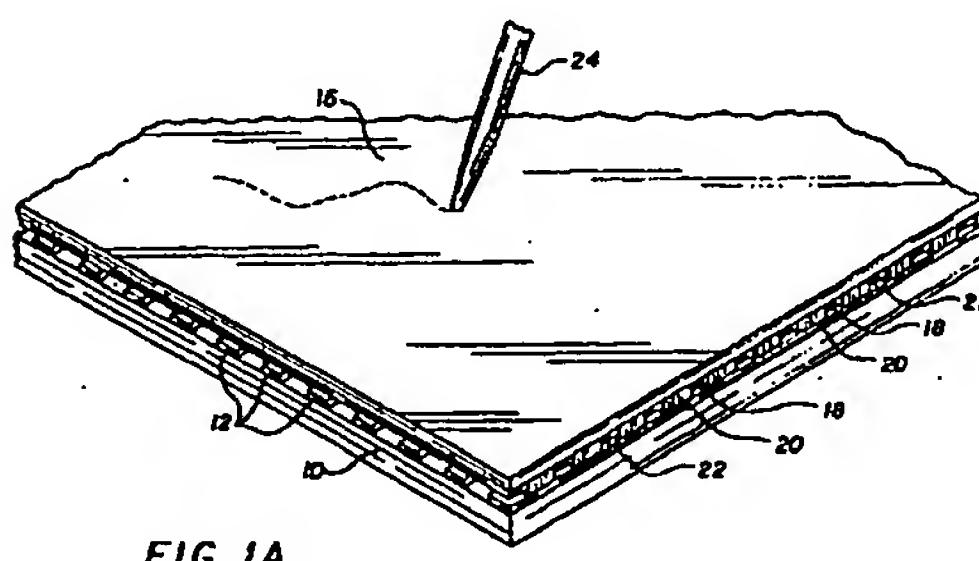


FIG. 1A

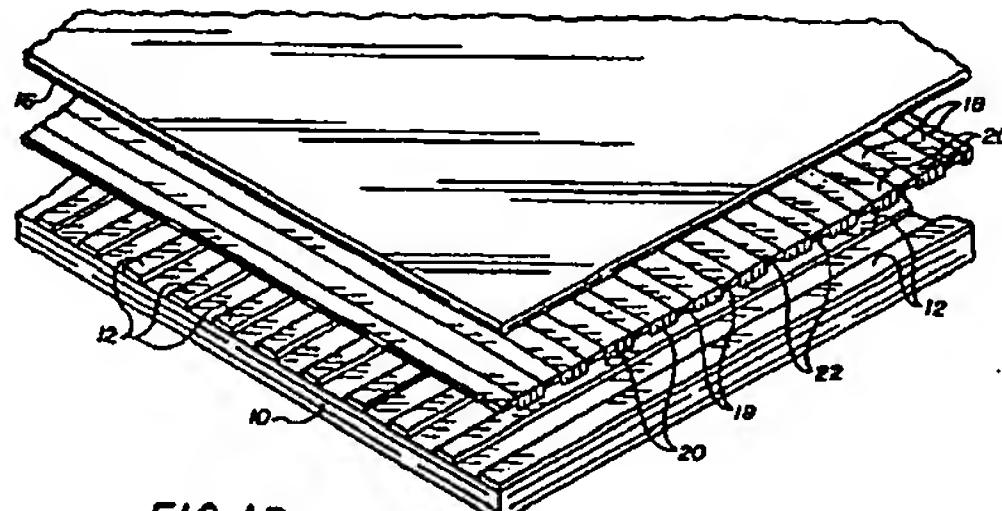


FIG. 1B

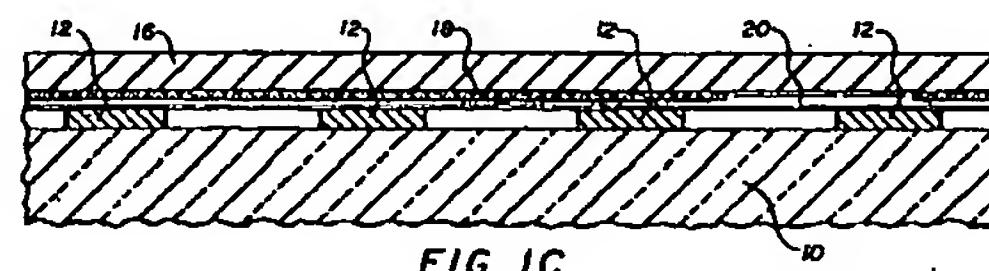


FIG. 1C

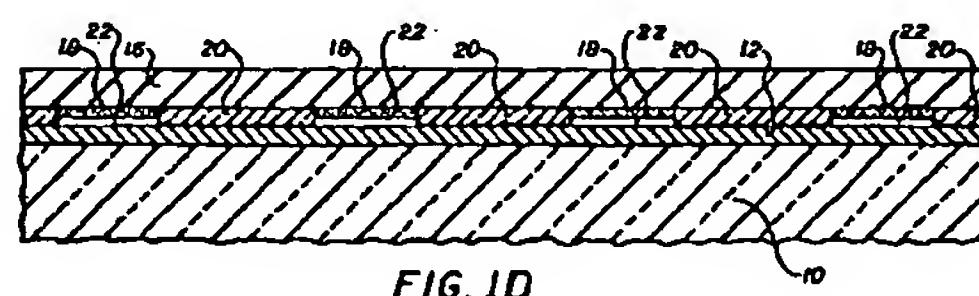


FIG. 1D

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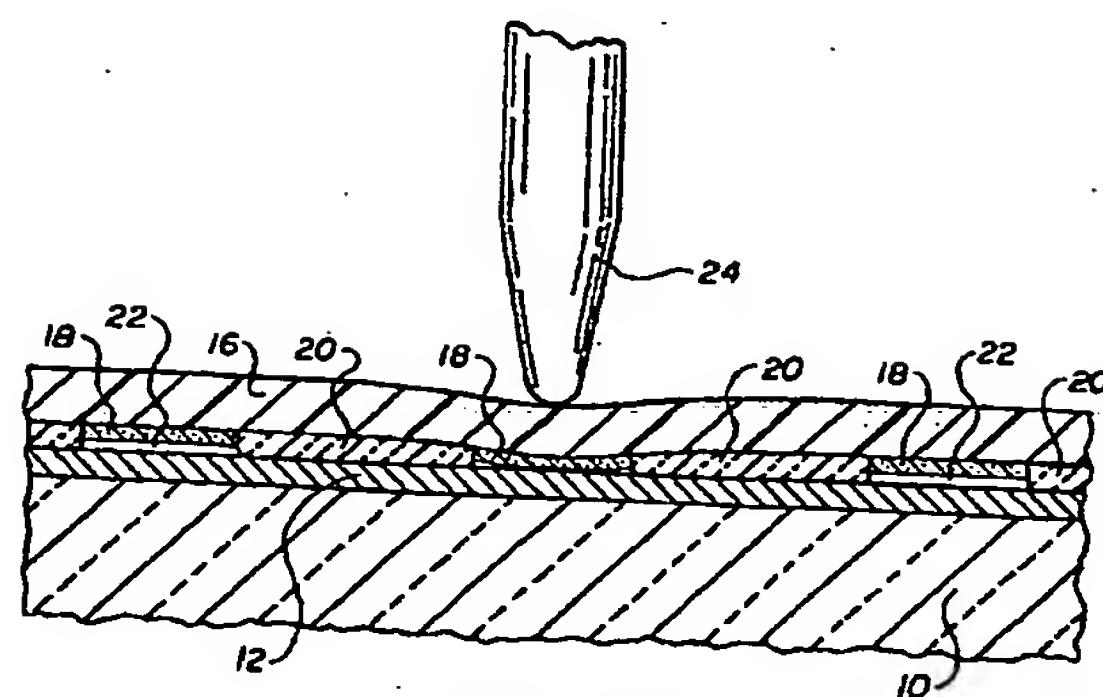


FIG. 1E



EUROPEAN SEARCH REPORT

Application Number
EP 95 30 2931

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	US-A-4 126 760 (GORDON) * the whole document *	1-3,5	G06K11/12
Y	---	1,4,6	
A	---	10	
Y	US-A-4 560 830 (PERL) * figures 2,3 * * column 2, line 45 - column 4, line 13 *	1,4,6	
A	THE INTERNATIONAL JOURNAL OF ROBOTICS RESEARCH, vol.8, no.1, February 1989, MASS.,USA pages 38 - 62, XP28625 R.A.GRUPEN ET AL., 'A SURVEY OF GENERAL-PURPOSE MANIPULATION' * figure 4 * * page 42, right column, line 32 - page 43, left column, line 23 *	10-12	

TECHNICAL FIELDS SEARCHED (Int.Cl.6)			
G06K G01L			

The present search report has been drawn up for all claims			
Place of search	Date of completion of the search		Examiner
THE HAGUE	31 January 1996		Weiss, P
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

See Sheet B.



All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.



Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid,

namely claims:



None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims,

namely claims:



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- B -

EP 95302931.1

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1-9
Touchpad sensor
2. Claims 10-13
Fabrication of touchpad

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